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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,698	09/30/2003	Sandeep K. Gopisetty	ARC920030056US1	7968
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LEWIS NUNNELLEY			EXAMINER	
Post Office 2428			AUGUSTINE, NICHOLAS	
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		2179		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/676,698

Applicant(s)

GOPISETTY ET AL.

Examiner

NICHOLAS AUGUSTINE

Art Unit

2179

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-14 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- A. This action is in response to the following communications: Amendment filed: 10/07/2010. This action is made **Non-Final**.
- B. Claims 1-5 and 8-14 remain pending.
- C. Claim 9 is objected.
- D. Claims 1-5 and 8-13 are rejected under 35 USC 101.
- E. Claim 14 is rejected under 35 USC 103. Claims 1-5 and 8-13 rejected under 35 USC 103 are withdrawn due to amendment.

Claim Objections

1. Claim 9 objected to because of the following informalities: Line 13 of claim 9, the term "utilizing" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:
- Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
3. Claims 1-5 and 8-13 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
- 3a. As for claims 1-5 and 8 are directed to a program per se as they are directed to a storage area network management system system, which as described in the specification is mere software (software system); a computer program per se is not

included in one of the statutory categories of invention and is believed to be non-statutory.

3b. As for claims 9-13, as recited, is directed toward a method for (a method for generating a perspective of a SAN topology) comprising the steps of (receiving, analyzing, determining, calculating, utilizing, generating, enabling). Please note (1) a computer, (2) computer-program product having instructions tangibly embodied thereon, when executed by a processor resulting in the recited steps, (3) network, etc. for example, are never recited in the body of the claim. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus, i.e. computer, network, computer-readable medium, etc., that accomplishes the method steps or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. As currently written the steps recited in claims (9-13) may be performed by hand or mentally and are therefore not sufficiently tied to another statutory class. A computer program per se "computer product" (falls under logic, abstract ideas) is not included in one of the statutory categories of invention.

(In re Bilski, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (Fed. Cir. 2008))

More information about this matter is covered in the Annex IV of the Interim Guidelines for Subject matter Eligibility. The following link on the World Wide Web is for the United States Patent And Trademark office (USPTO) policy on 35 U.S.C. §101

<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf>

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Battat et al (US 5,958,012)**, herein referred to as "Battat" *in view of Moore, Joseph et al (US*

Pub 2003/0200390), herein referred to as "**Moore**" in further view of **Dere, Judy Y. (US Pat. 5,802,286)**, herein referred to as "**Dere**".

Teaching reference (as for claim 14):

Bird, Drew

(<http://www.enterprisestorageforum.com/sans/features/article.php/981191>),

Bird will be used as a teaching reference to show what is known in the art as Bird provides evidence of known elements of a Storage Area Network (SAN), because Bird shows that a SAN is described as:

"Many IT organizations today are scratching their heads debating whether the advantages of implementing a SAN solution justify the associated costs. Others are trying to get a handle on today's storage options and whether SAN is simply Network Attached Storage spelled backwards. In this article, I introduce the basic purpose and function of a SAN and examine its role in modern network environments. I also look at how SANs meet the network storage needs of today's organizations and answer the question, could a SAN be right for you. "

"In very basic terms, a SAN can be anything from two servers on a network accessing a central pool of storage devices to several thousand servers accessing many millions of megabytes of storage. Conceptually, a SAN can be thought of as a separate network of storage devices physically removed from, but still connected to, the network. SANs evolved from the concept of taking storage devices, and therefore storage traffic, off the LAN and creating a separate back-end network designed specifically for data."

"The advantages of SANs are numerous, but perhaps one of the best examples is that of the serverless backup (also commonly referred to as 3rd Party Copying). This system allows a disk storage device to copy data directly to a backup device across the high-speed links of the SAN without any intervention from a server. Data is kept on the SAN, which means the transfer

does not pollute the LAN, and the server processing resources are still available to client systems.”

Bird teaches known software elements that can be shown in a viewer.

Where it will be shown that Battat is an example of a network viewer. Since Battat as modified by Moore views networks and is able to view a SAN then the fundamentals of a SAN would apply to Battat as modified by Moore's viewer.

As for independent claim 14, Battat teaches a network management system device including system readable code readable by a server system for generating a perspective of a network topology (fig.1 and col.7, line 60), *comprising: logic means for receiving a request to provide a perspective of a network topology* (fig.10 and col.8, line 11; wherein an agent interacts with the database/ repository to obtain object information; col.11, line 34); *logic means for analyzing the request at a topology viewer and sending the request to a network management program for adjacent nodes* (104, col.8, lines 11-14 and fig.1); *logic means for calculating data paths within the requested perspective which have not been previously calculated; and logic means for generating the requested perspective according to both the previously calculated data paths stored in memory allocated for that purpose and the calculated data paths* (Col.8, lines 11-14 and fig.1; wherein is depicted of sending events and notifications to the management application), *whereby the perspective includes all network devices within the network topology which are connected to an identified network device and all network devices which are accessible to the identified SAN device, wherein the identified network device*

is included within the network topology, logic means for generating a view of physical connections given a selection of a logical connection (col.9, lines 39-41 and col.5, line 25; fig.1 and 6; wherein figure 6 deals with the rendering of the current scene to the display device; col.6,lines 10-25).

Battat does not expressly disclose the term "SAN" (storage area network), only to suggest that the claimed invention of Battat teaches a program for interaction with a network through use of a network manager and network viewer. Battat further provides evidence that the network being managed can be a SAN but does not specifically state/label the network as a SAN, for example in col.16, lines 13-30; Battat talks about viewing only a collection of components from the system for the administrator to view such as subnetworks, that gives the admin the ability to view only storage devices. In col.4,lines 15-25 is another example the Battat is concerned with allowing the admin to manage the view to only view "subsystem" and "subpart of a network" without specifically mentioning this is a storage area network (SAN).

In col.5, lines 53-67 provide the objective Battat covers:

"The invention describes in virtual reality terms the hierarchical structure of a network. The present invention includes a hierarchical organization of the various world-wide computer system components, including continents, wide area networks, cities, buildings, subnetworks, segments, computers and peripherals, and their internal hardware, firmware, and software resources. However, another objective of the present invention is to provide a system that does not impose on the user any particular hierarchical model. The present invention allows the use of configuration tools enabling the user to set up any logical structure."

Battat further teaches in col.15, lines 20-30 that the user is able to customize the screen to show a network of devices, such as databases, network cards, disk drives, etc... "storage devices".

It is clear that Battat does not mention the term SAN. It is also clear that Battat provides a network manager and a network viewer for interaction with a network. It is also clear that Battat provides that the type of network(s) that is capable of being interacted with is (can be) one of a SAN as Battat explains the different types of network(s) and configuration options provided to the administrator of Battat's system; thus Battat provides the means to manage and view a SAN (storage area network) as outlined above.

However, in the same field of endeavor **Moore teaches** a viewer viewing weighted graph views of a storage area network (SAN); (par.20-24). Moore is also concerned with the generation of the graphs using an adjacency matrix (par.24).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Moore in to Battat; this is true because Moore is concerned with providing a viewer to view a graph of a network (par.1). Battat is also concerned with providing a viewer that is setup to view a network. The combination of Moore into Battat provides that Battat's viewer is capable of viewing storage area networks, since Battat mentions that the viewer can view any hierarchical organization (col.5, lines 53-67: Battat) and Moore describes an organized hierarchical structure (fig.1 and par.16-19: Moore, depicted is a storage area network), thus Moore's organized hierarchical structure can be viewed by Battat's viewer.

Since it is shown that Battat as modified by Moore teaches interaction with a SAN.

Bird is now brought in as a teaching reference to show evidence of known features (known in the art) of a storage area network (SAN); specifically that within a SAN transfers between storage devices can be done without server intervention. *Please note above for the reference teachings of Bird.*

Battat as modified by Moore does not specifically teach said network manager program capable of generating an adjacency matrix.

However in the same field of endeavor **Dere teaches** a network manager program capable of generating an adjacency matrix (col.2, line 56 and col.6, lines 64-67; col.7, lines 1-6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Dere into Battat as modified by Moore, this is true because Dere teaches a network management tool connects to a network and configures a network (col.4, lines 59-67). Battat also teaches a network management tool used to manage a network (col.4, lines 46-50). Also Moore teaches the use of an adjacency matrix when viewing a graph of network (par.24: Moore). Dere's logic of network node detection by using adjacency matrix would have been viewed by one of ordinary skill in the art as an alternative added function to Battat's system and the combination would provide for the use of an adjacency matrix in Battat's system as modified by Moore.

(Note :) It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331, 1332-33, 216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

Response to Arguments

Applicant's arguments filed 10/07/2010 have been fully considered but they are not persuasive.

A1. Applicant argues on page 09 of remarks that claim 14 include the limitation "logic means for reusing information from a previous request for a perspective (which was stored in memory for that information)".

R1. Examiner does not read this limitation into the submitted claim language. For example claim 9 uses the limitation language "utilizing information gathered in the generating of prior SAN topology perspectives by the SAN management program from memory in the SAN management program allocated for that purpose". This allowable subject matter is absent from claim 14.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Augustine whose telephone number is 571-270-1056 and fax is 571-270-2056. The examiner can normally be reached on Monday - Friday: 9:30am- 5:00pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Augustine/
Examiner
Art Unit 2179
December 16, 2010